Application Serial No.: 10/046,730

Amendments to the Specification:



Please replace the paragraph beginning on page 6, line 1 with the following:

In a first aspect of the invention, solid phases for enhancing chemiluminescent emissions are provided. In one embodiment of the invention, the solid phase comprises a chemiluminescent enhancing material and a bipolymer biopolymer probe such as a hybridizing probe physically or covalently attached to a surface of the solid phase. The probe itself can comprise a naturally occurring biopolymer, a synthetic analog of a biopolymer, or a combination of naturally occurring and synthetic segments. The molecular probe can be covalently attached to the solid phase by react ing a functional group on the probe with a functional group on the surface of the solid phase. The chemiluminescent enhancing material can be incorporated into the bulk of the solid phase as, for example, a component of a hydrogel, or coated on or covalently attached to the surface of the solid phase. The chemiluminescent enhancing compound can be a quaternary onium compound. When coated on the surface of the solid phase, the quaternary onium compound can be a quaternary onium polymer. According to a further embodiment of the invention, the probes and/or the chemiluminescent enhancing compound can be present on the surface of the solid phase in spatially defined regions. The solid phase having spatially defined regions of biopolymer probes and/or chemiluminescent enhancing compound can be used as a support for microarray based chemiluminescent assays.